REMARKS

The present Amendment amends claim 11, cancels claim 12 and leaves claim 13 unchanged. Therefore, the present application has pending claims 11 and 13.

Claims 11 and 12 stand rejected under 35 USC §103(a) as being unpatentable over Tiernan (U.S. Patent No. 6,172,988) in view of Northcutt (U.S. Patent No. 6,185,737). As indicated above, claim 12 was canceled. Therefor, this rejection with respect to claim 12 is rendered moot. This rejection with respect to the remaining claim 11 is traversed for the following reasons. Applicants submit that the features of the present invention as now recited in claim 11 are not taught or suggested by Tiernan or Northcutt whether taken individually or in combination with each other as suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to claim 11 so as to more clearly recite that the present invention is directed to a layer-coded data transmitting apparatus for transmitting layer-coded data in a single channel including converting means for converting layer-coded data belonging to each of a plurality of layers of an elementary stream (ES) to packetized elementary stream (PS) data, first packetizing means for packetizing the PES data to a real-time protocol (RTP) packet for each layer data, and second packetizing means for packetizing the RTP packet to a user datagram protocol (UDP) packet for layer data.

Unique according to the present invention is that the converting means inserts an identifier indicating a species of ES to the PES packet and converts

the ES data according to the identifier so that only the ES data belonging to the same layer is contained in a single PES packet which transmits ES data.

Further, unique according to the present invention is that the first packetizing means divides the PES data belonging the same layer into a plurality of RTP packets each of which includes the divided PES packet data and a RTP header annexed to the divided PES packet so that the length of each RTP packet is not greater than a maximum length at which a UDP packet is transmittable, thereby permitting a UDP header to be added to each RTP packet to form a UDP packet by the second packetizing means and that the second packetizing means packetizes the RTP packet so that only the RTP packet data belonging to the same layer is contained in a single UDP packet.

The above described features of the present invention particularly with regards to dividing the PES data so that the length of each RTP packet is not greater than a maximum length at which a UDP packet is transmittable, thereby permitting a UDP header to be added to each RTP packet to form a UDP packet by the second packetizing means as described, for example, on page 14, line 8 through page 16, line 27 of the present application are not taught or suggested by any of the references of record whether taken individually or in combination with each other.

The above described features of the present invention now more clearly recited in the claims are not taught or suggested by Tiernan or Northcutt whether taken individually or in combination with each other as suggested by the Examiner.

Tiernan teaches a method for supplying arbitrary types of information in a digital signal format to MPEP 2 systems. Particularly, Tiernan teaches in Fig. 8 thereof and in col. 9, lines 30-37 the converting of an ES packet into a PES packet and into IP packets. Further, Tiernan teaches in Fig. 1, col. 5, line 56 through col. 6, line 4 the packetizing of ES packets into respective PES packets.

However, as recognized by the Examiner:

> "Tiernan is silent or deficient to a further limitation of a first packetizing means for packetizing the PES data to a RTP packet for each layer data and a second packetizing means for packetizing the RTP to a UDP packet for each layer data".

Since Tiernan is deficient of any teaching or suggestion as admitted by the Examiner of the first and second packetizing means it is further evident that Tiernan does not teach or suggest the specific operations performed by the first and second packetizing means to conduct the respective packetizing functions as recited in the claims.

For example, claim 11 recites that the first packetizing means not only converts the PES data to RTP packets but performs such packetizing by dividing the PES packet into a plurality of RTP packets in a manner so that the length of each RTP packet to be formed based upon the divided PES packet is not greater than the permissible transmittable length of a UDP packet.

Further, claim 11 recites that due to the above described operation performed by the first packetizing means, the second packetizing means need* simply form UDP packets by adding to each RTP packet a UDP header

being that the length of each RTP packet is maintained to be equal to or less than the permitted transmittable length of a UDP packet.

The above described specific operations performed by the first and second packetizing means are not taught or suggested by Tiernan.

Therefore, Tiernan fails to teach or suggest that the packetizing means defines the PES packet belonging to the same layer into a plurality of RTP packets each of which includes the divided PES packet data and a RTP header annexed to the divided PES packet so that the length of each RTP is not greater than a maximum length at which a UDP is transmittable, thereby permitting a UDP header to be added to each RTP packet to form a UDP packet by the second packetizing means as recited in the claims.

The above noted deficiencies of Tiernan are not supplied by any of the other references of record. Particularly, the above described features shown above not to be taught or suggested by Tiernan are also not taught or suggested by Northcutt. Therefore, combining the teachings of Tiernan and Northcutt in the manner suggested by the Examiner in the Office Action still fails to teach or suggest the features of the present invention as now more clearly recited in the claims.

Northcutt teaches a method and apparatus for providing a multi-media network interface. Northcutt, teaches the conversion of audio/video data from an RTP packet via a UDP packet into an IP packet. However, at no point is there any teaching or suggestion in Northcutt of the above specific operations functions performed by the first and second packetizing means in order to form a UDP packet according to the present invention.

Particularly, there is no teaching or suggestion in Northcutt of the first packetizing means which divides the PES packet into a plurality of RTP packets in a manner such that the length of each RTP packet is limited to the permitted transmittable length of a UDP packet as in the present invention. Further, there is no teaching or suggestion in Northcutt that since the length of each RTP packet is limited to the permitted transmittable length of a UDP packet, the second packetizing means merely needs to add a UDP header to each RTP packet so as to form a UDP packet as in the present invention.

Therefore, Northcutt, the same as Tiernan, fails to teach or suggest that the first packetizing means divides the PES packet belonging to the same layer into a plurality of RTP packets each of which includes the divided PES packet data and a RTP header annexed to the divided PES packet so that the length of each RTP packet is not greater than a maximum data length at which a UDP packet is transmittable, thereby permitting a UDP header to be added to each RTP to form a UDP packet by the second packetizing means as recited in the claims.

As is quite clear from the above, Northcutt suffers from the same deficiencies of Tiernan relative to the features of the present invention as now more clearly recited in claim 11. Therefore, combining the teachings of Tiernan and Northcutt in the manner suggested by the Examiner in the Office Action still fails to teach or suggest the features of the present invention as now more clearly recited in claim 11. Accordingly, reconsideration and withdrawal of the 35 USC §103(a) rejection of claim 11 as being unpatentable over Tiernan in view of Northcutt is respectfully requested.

Applicants note that the Examiner indicated that claim 13 is allowed.

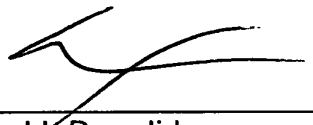
The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 11 and 12.

In view of the foregoing amendments and remarks, Applicants submit that claims 11 and 13 are in condition for allowance. Accordingly, early allowance of claims 11 and 13 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (500.37418CX1).

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



Carl I. Brundidge
Registration No. 29,621

CIB/jdc
(703) 312-6600